

CLAIMS

What is claimed is:

1. An electrochromic window comprising:

a first plate and a second plate disposed from said first plate, each of said first plate and said second plate being transparent to at least one wavelength of electromagnetic radiation;

a first electrically conductive layer and a second electrically conductive layer, said first electrically conductive layer being attached to said first plate and said second electrically conductive layer being attached to said second plate; and

an attenuation layer disposed between said first electrically conductive layer and said second electrically conductive layer, said attenuation layer comprising a layer of an at least partially cured photopolymerizable monomer mixed with an electrolyte and an electrochromic material.

2. The electrochromic window of claim 1, wherein said first plate and said second plate comprise a glass.

3. The electrochromic window of claim 1, wherein said first conductive layer and said second conductive layer are transparent to at least one wavelength of electromagnetic radiation.

4. The electrochromic window of claim 1, wherein said photopolymerizable monomer comprises one of polymethylmethacrylate and methylpentene.

5. The electrochromic window of claim 1, wherein said attenuation layer attenuates electromagnetic waves that pass through said attenuation layer.

6. The electrochromic window of claim 1, wherein said attenuation layer comprises an electrochromic layer and an electrolyte layer coupled to said electrochromic layer.

7. The electrochromic window of claim 1, wherein said attenuation layer attenuates electromagnetic waves that pass through said attenuation layer based upon a voltage between said first electrically conductive layer and said second electrically conductive layer.

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8. An electrochromic window comprising:
 - a first plate having an inside surface;
 - a second plate disposed from said first plate, said second plate having an inside surface;
 - an electrically conductive layer adjacent said inside surface of each of said first plate and said second plate; and
 - an attenuation layer disposed between said first plate and said second plate, said attenuation layer comprising an electrochromic material, a guest-host electrolyte, and an at least partially curable photopolymerizable monomer.
9. The electrochromic window of claim 8, wherein said first plate and said second plate comprise glass.
10. The electrochromic window of claim 8, wherein said first plate and said second plate are transparent to at least one wavelength of electromagnetic radiation.
11. The electrochromic window of claim 8, wherein the photopolymerizable monomer comprises one of polymethylmethacrylate and methylpentene.
12. The electrochromic window of claim 8, wherein said guest-host electrolyte and said at least partially curable photopolymerizable monomer are in solution.

13. The electrochromic window of claim 8, wherein said electrochromic materials is in solution with said at least partially curable photopolymerizable monomer.

14. The electrochromic window of claim 8, wherein said guest-host electrolyte and said at least partially curable photopolymerizable monomer are in solution and form a first layer of said attenuation layer.

15. The electrochromic window of claim 14, wherein said electrochromic materials form a second layer of said attenuation layer.

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16. A method of manufacturing an electrochromic window comprising:

a step for positioning at least one conductive layer, said at least one conductive layer being configured to substantially transmit a particular wavelength of electromagnetic radiation;

a step for depositing an attenuation layer upon said at least one conductive layer, wherein said attenuation layer comprises an electrolyte material, an electrochromic layer, and an at least partially curable photopolymerizable monomer, said monomer being cured by a first wavelength of electromagnetic radiation; and

a step for transmitting said first wavelength of electromagnetic radiation, through said at least one conductive layer, to said attenuation layer to at least partially cure said monomer.

17. The method of claim 16, further comprising a step for positioning at least one plate adjacent to said at least one conductive layer.

18. The method of claim 16, further comprising a step for positioning at least one plate to receive said at least one conductive layer.

19. The method of claim 16, wherein said step for depositing said attenuation layer comprises:

a step for depositing a first layer comprising said electrolyte and said at least partially curable photopolymerizable monomer; and

a step for depositing a second layer upon said first layer, said second layer comprising said electrochromic material.

20. The method of claim 16, wherein said step for depositing said attenuation layer comprises:

a step for creating a solution of said electrolyte and said at least partially curable photopolymerizable monomer; and

a step for depositing a first layer, said first layer comprising said solution; and

a step for depositing a second layer upon said first layer, said second layer comprising said electrochromic material.

21. The method of claim 16, wherein said step for depositing said attenuation layer comprises:

a step for creating a mixture of said electrolyte and said at least partially curable photopolymerizable monomer; and

a step for depositing a first layer, said first layer comprising said solution; and

a step for depositing a second layer upon said first layer, said second layer comprising said electrochromic material.

22. The method of claim 16, wherein said step for positioning said at least one conductive layer comprises applying a conductive liquid to at least one plate.

23. The method of claim 22, wherein said step for positioning said at least one conductive layer includes applying a solid sheet of conductive material upon at least one plate.

24. The method of claim 16, wherein the photopolymerizable monomer comprises one of polymethylmethacrylate and methylpentene.

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